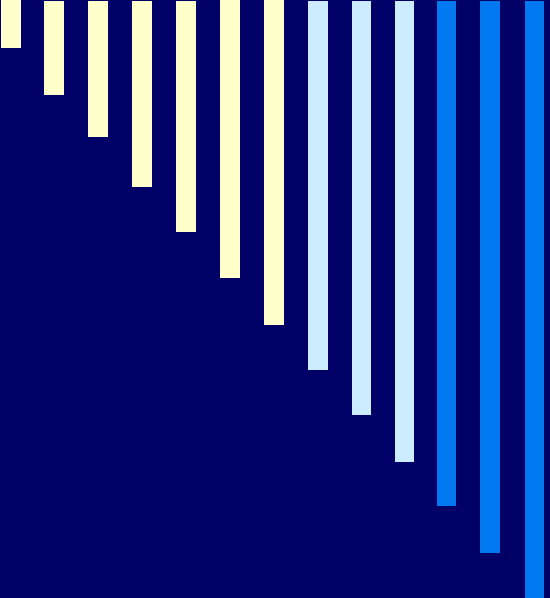
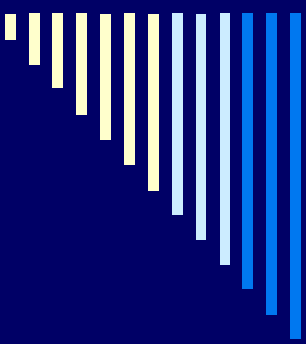



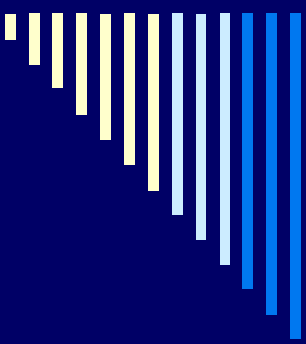
ITAR and AMSAT-NA

Bill Ress

N6GHZ@amsat.org



What is ITAR ?



What is ITAR ?

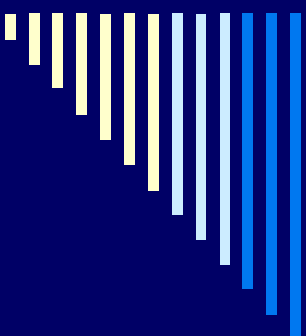
International **T**raffic in **A**rms **R**egulations

ITAR

Administered by
**U.S. Department of
State**

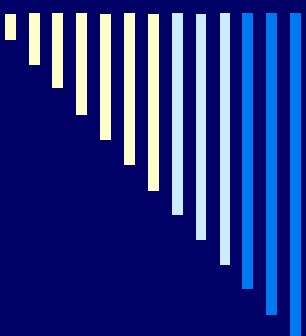


Directorate of Defense Trade Controls (DDTC)



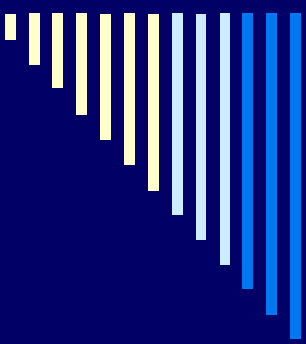
AMSAT-NA Background

- **AMSAT-NA developed the IHU-3**
 - Integrated Housekeeping Unit used on our satellites starting with IHU-1
- **AMSAT-NA desire to support AMSAT-DL on P3E with the IHU-3**
 - Support efforts could fall under ITAR export controls
- **ITAR “paranoia” recently gripped many volunteers**
- **Imperative that AMSAT-NA understand ITAR**
 - Almost 2 years of work by Rick Hambly, President AMSAT-NA



ITAR and Satellites

- ❑ In 1996 commercial satellite jurisdiction transferred to Department of Commerce.
- ❑ Two launch failures on China's Long March rocket.
 - Jan 1995 – the Hughes Apstar 2 on a Long March 2E
 - Feb 1996 – Loral Intelsat 708 on a Long March 3B
- ❑ The launch failure analysis between China and Hughes and Loral (insurance requirements)
- ❑ In 1999 ITAR was transferred to State Department.
- ❑ In Jan 2002, Hughes (now Boeing) and Loral paid large fines.



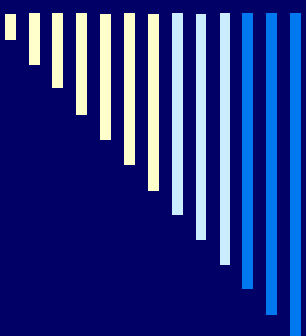
Effects of ITAR

☐ The Positive Effects

- Uncovering and prosecuting of many export violations
- Protection of “sensitive” military and space technology exports

☐ The Negative Effects

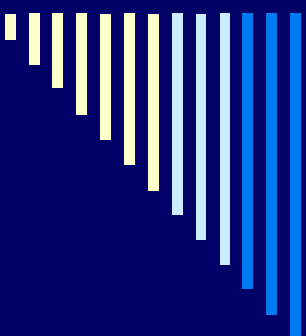
- Regulatory restrictions on industry and academia
- Weakening of the U.S. space industry
- Loss of technological leadership
- Non-U.S. “ITAR Free” competition



Why is AMSAT-NA Affected?

**ITAR considers satellites
and their
related components
as "defense items"**

IF EXPORTED !!



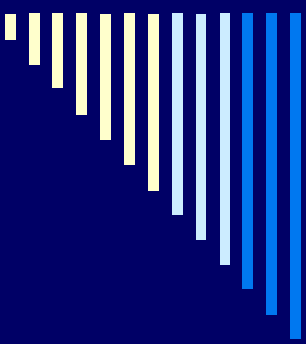
Exports and Deemed Exports

☐ Exports

- Transfer of physical items out of the U.S.

☐ Deemed Exports

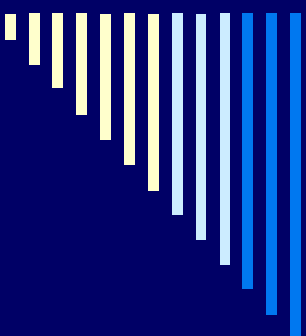
- Transfer of data to a foreign person, via mail, email or conversations even when the transfer occurs in the U.S.



Who qualifies as a “foreign person”?

1) Non-US Citizen

**2) Non-US Green Card Holder /
Permanent Resident**

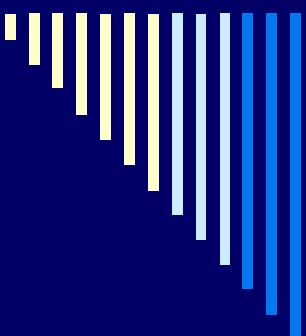


Applicable Export Laws for AMSAT-NA

ITAR - Dept. of State
(Covers Military and Space Munitions)

&

EAR (Export Administration Regulations)
Dept. of Commerce
(Covers “Dual-Use” Items)



Types of “Defense Articles”

- a) Significant Military Equipment (SME)**
- b) Non-Significant Military Equipment**

What is a Defense Article?

Obvious !



What is a Defense Article?

Not Obvious !



What is a Defense Article?

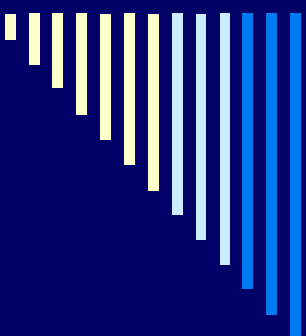
Obvious !



What is a Defense Article?

Not Obvious !



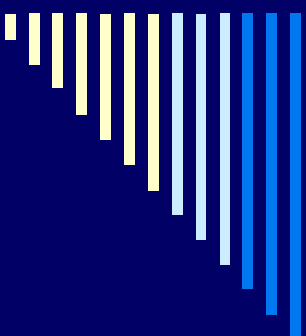


Possible AMSAT-NA Items Covered By ITAR (121.1)

Category IV – Launch Vehicles (adapter ring)

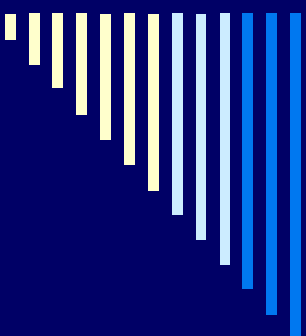
**Category XV – Spacecraft (AO-51) and Spacecraft
Systems (70 cm RX)**

Category XI – Military Electronics (computers, IHU-3)



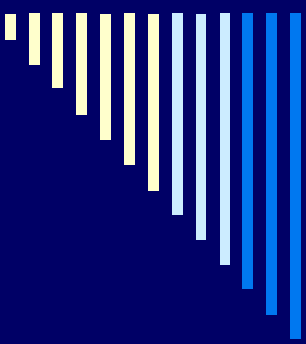
What about papers delivered at a AMSAT-NA Symposium??

ITAR 120.11 permits public domain exchanges as unlimited distribution at a conference, meeting, seminar, trade show or exhibition generally accessible to the public in the U.S.



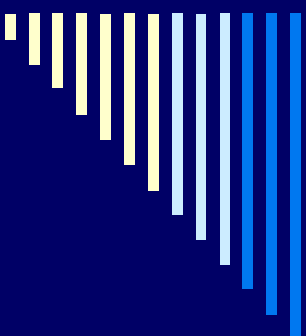
Export Compliance Actions Needed By AMSAT-NA?

- ➡ Do not view export control rules as a “vial curse” to AMSAT-NA
- ➡ Work within the well defined export control rules and procedures
- ➡ AMSAT-NA is a registered (licensed) “manufacturer and exporter”



Commodity Jurisdiction Determination

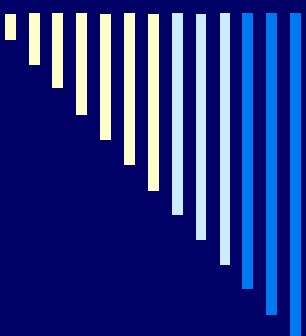
**Ask the State Department to make a
“commodity jurisdiction determination”
for the IHU-3 to support P3E**



Technical Assistance Agreements (TAA)

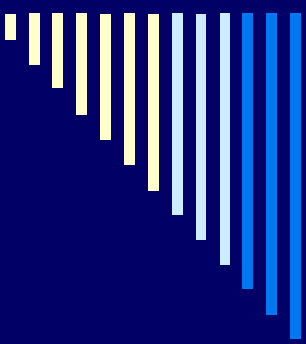
- Grant rights to disclose technical data and provide technical assistance
- No manufacturing or production rights may be provided

TAA's are specific to country, buyer / end user, product & purpose and must be executed by both the US and foreign parties



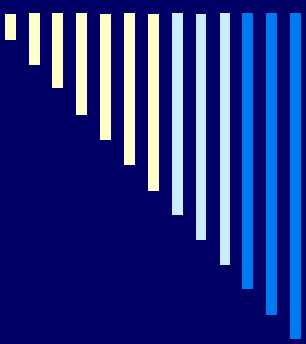
Planned AMSAT-NA TAA Action

We will draft a TAA **just** between
AMSAT-NA and AMSAT-DL to provide
technical support for **just** the IHU-3 on
the P3E satellite



Prepare AMSAT-NA Export Compliance Guidelines

This will be an AMSAT-NA document which will guide members involved in designing and building satellites about applicable export control issues.



Conclusion

**US export controls are real and they
apply to AMSAT-NA**

If we are to support **international
Amateur satellite development we must
understand and comply with the
applicable export control rules.**

QUESTIONS???